# UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

*Ex parte* DAVID MICHAEL KOELLE and BRIAN JAMES TARBOX

Appeal 2007-3613
Application 09/895,231
Technology Center 2100

Decided: March 25, 2008

*Before* ALLEN R. MACDONALD, JEAN R. HOMERE, and THU A.
DANG, *Administrative Patent Judges*.

MACDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. §§ 6(b) and 134(a) from a Final

Rejection of claims 1-29.

Claims 1-4 and 6 are exemplary:

1.    A method of managing a set of data by a distributed set of services, comprising the steps of:
   organizing the set of data into a plurality of related sets of data;[1]

   assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria;[2] and

   responsive to failure of a service within the distributed set of services, transferring management of the related set of data managed by the failed service to another service within the distributed set of services.[3]

2.    The method as recited in claim 1, wherein the optimization criteria is based on location of the service within the distributed set of services.

3.    The method as recited in claim 1, further comprising:

   detecting the failed service by a set of remaining services within the distributed set of services; and

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[1] We refer to this step as the "organizing step."
[2] We refer to this step as the "assigning step."
[3] We refer to this step as the "transferring step."

examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.[4]

4.    The method as recited in claim 3, further comprising:

determining whether data within the related set of data are at the same location as a service within the set of remaining services;[5] and

responsive to data within the related set of data at the same location as a service within the set of remaining services, attaching the data to the service.

6.    A method of managing a set of data by a distributed set of services, comprising the steps of:

organizing the set of data into a plurality of related sets of data;

assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria;

responsive to an additional service joining the distributed set of services, querying management of the data within the related sets of data;[6] and

assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

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[4] We refer to this step as the "examining step."
[5] We refer to this step as the "determining step."
[6] We refer to this step as the "querying step."

The reference relied upon by the Examiner in rejecting the claims on appeal is:

Kenner          US 6,496,856 B1        Dec. 17, 2002
                                            (filed May 18, 2000)

Claims 1-29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kenner.

We affirm.

## FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

### *Kenner*

1. Kenner discloses distributing *multiple* video clips to multiple storage and retrieval units (SRUs). (Col. 14, ll. 43-54.)

2. Kenner discloses distributing video segments to SRUs geographically closer to the user most interested in those videos. (Col. 8, ll. 27-35.)

3. Kenner discloses that when an SRU fails to deliver a requested video clip, the data sequencing interface (DSI) increments the SRU under-run counter for that SRU and communicates this information to the primary index manager (PIM). (Col. 14, ll. 20-28.) If the SRU under-run count exceeds a threshold, the PIM directs further requests away from this affected SRU by the DSI 30 querying alternate SRUs for the video clip. (*Id.*)

4. Kenner discloses that alternate SRUs are at different locations than the SRU that failed to deliver a requested video clip. (Col. 9, ll. 56-58 and Col. 14, ll. 25-30.)

5. Kenner discloses adding SRUs to a network. (Col. 14, ll. 60-63.)

6. Kenner discloses performing load balancing between SRUs so that data will be moved or copied from heavily loaded SRUs to more lightly loaded SRUs to flatten SRU usage. (Col. 14, ll. 33-38.)

PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 827 (1987).

ANALYSIS

Claim 1

The Examiner finds that Kenner anticipates claim 1. (Ans. 4-5.) Appellants allege that Kenner fails to disclose the claimed organizing, assigning, and transferring steps. (App. Br. 12-16 and Reply Br. 2-5.) Thus the issues are whether Appellants have shown that the Examiner erred by

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finding that Kenner discloses the claimed organizing, assigning, and transferring steps.

*Organizing Step*

Appellants' allegation that the Examiner erred in finding that Kenner discloses the organizing step is based on an argument that Kenner fails to disclose organizing data into a *plurality of related sets of data*, but instead discloses copying individual video clips. (App. Br. 12 and 14 and Reply Br. 4.)

We find that Kenner discloses distributing multiple video clips to multiple SRUs to achieve load balancing and/or to meet demand based on geography. (FF 1, 2, and 6.) Accordingly, Kenner's distributing video clips to multiple SRUs involves organizing data for storage among multiple locations. Moreover, Kenner's distributed video clips are related sets of data because they are the same type of data (i.e., video) and in some cases, the same video. Thus, Kenner's distributing video clips to multiple SRUs discloses the claimed organizing data into a *plurality* of *related* sets of data. Thus, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner discloses the organizing step.

*Assigning Step*

We begin our analysis by construing the claimed "service."
Appellants' Specification states that a "service is an application program that
performs some task" (Spec. 14:9-10) and illustrates embodiments used in a
computer (Spec. 8:19-23). The Computer Dictionary defines "service" as
"[w]ithin a computer . . . a program or routine that provides support to other
programs." *Microsoft Press computer dictionary: the comprehensive
standard for business, school, library, and home*, 314, Microsoft Press
(1991). Accordingly, we broadly but reasonably construe the claimed
"service" as *any* function performed by a computer.

Kenner discloses copying or moving video clips to SRUs to provide
the SRUs the capability to distribute the video clips. (FF 1, 2, 4, and 6.)
Kenner discloses that the copying or moving is based on factors such as load
balancing, responding to a failure to deliver a video clip, or providing video
from a geographic location closer to the user. (FF 1-4 and 6.) We find that
distributing video clips meets the claimed service. We find that the factors
disclose the claimed optimization criteria. Accordingly, we find that
Kenner's copying or moving video to SRUs to provide the SRUs the
capability to distribute the video clips based on the factors discloses the
assigning step.

Because we find that Kenner discloses use of optimization criteria,
Appellants' allegation that the Examiner has improperly found that Kenner
inherently discloses use of optimization criteria (App. Br. 14-15) is moot.

Next, we address Appellants' other allegations of Examiner error concerning the assigning step. Appellants allege that the assigning step requires assigning management of related video clips to *another* service and argues that Kenner fails to disclose such requirement because Kenner discloses that if an SRU fails to deliver a video clip, the request is directed to an SRU that *already manages the clip*. (App. Br. 14 and Reply Br. 4-5.) We disagree with Appellants' allegation because we find that the assigning step does not preclude assigning management of a video clip to another SRU that already manages the video clip because the assigning step is silent as to whether another service can already manage the video clip.

Appellants allege that Kenner fails to disclose assignment of a related set of video clips because Kenner discloses handling video clips *one-by-one*. (App. Br. 14.) We disagree with Appellants. We found *supra* that Kenner's distributing video clips to multiple SRUs discloses assigning management of a related *set* of data.

Thus, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner discloses the assigning step.

*Transferring Step*

Appellants allege that the Examiner erred in finding that Kenner discloses the transferring step by arguing that Kenner fails to disclose transferring management of video clips to another service that does not already manage the video clip. (Reply Br. 4-5.)

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We disagree with Appellants' allegation and find that the transferring step does not preclude transferring management of a video clip to another SRU that already manages the video clip because the transferring step is silent as to whether another service can already manage the video clip.

By assigning responsibility to deliver video to another SRU (FF 1, 2, 3, and 6), Kenner discloses transferring management of data to another service. Thus, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner discloses the transferring step.

Therefore, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claim 1.

<div align="center">Claims 2, 13, and 22 and Claims 7, 18, and 27</div>

Claims in these groups are subject to the same rejection. Appellants set forth the same or similar arguments as to Examiner error for all claims in these groups. (App. Br. 16-17 and 20 and Reply Br. 5-6 and 10.) Therefore, we select claim 2 as the representative claim to decide the appeal of claims in these groups.

The Examiner finds that Kenner anticipates claim 2. (Ans. 5 and 28-29.) Appellants allege that the Examiner erred in finding that Kenner anticipates claim 2 by arguing that Kenner fails to disclose consideration of a location of a service as an optimization criteria because Kenner's criteria for duplicating video is on how often the video is accessed rather than the location of the services. (App. Br. 16 and Reply Br. 6.)

We find that Kenner discloses a set of SRUs that are geographically disbursed and Kenner discloses placing copies of video on SRUs that are *geographically closer* to users most interested in the videos. (FF 2.) Accordingly, we find that Kenner discloses transferring management of data to a service based on a location of the service. Thus, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claim 2. For the same reasons, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claims 13 and 22 and claims 7, 18, and 27.

<div align="center">Claims 3, 14, and 23 and Claims 8, 19, and 28</div>

Claims in these groups are subject to the same rejection. Appellants set forth the same or similar arguments as to Examiner error for all claims in these groups. (App. Br. 17 and 21 and Reply Br. 7 and 10-11.) Therefore, we select claim 3 as the representative claim to decide the appeal of claims in these groups.

The Examiner finds that Kenner anticipates claim 3. (Ans. 5-6 and 29-30.) Appellants allege that the Examiner erred in finding that Kenner anticipates claim 3 by arguing that Kenner fails to disclose the examining step. (App. Br. 17 and Reply Br. 7.) In particular, Appellants argue that Kenner's DSI incrementing an SRU counter in the event of a failure to deliver a video and the PIM directing a request for an individual video to another SRU based on the SRU counter is not the same as the examining step. (*Id.*)

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We find that Kenner discloses that when an SRU fails to deliver a requested video clip, a DSI increments an SRU counter and when the SRU counter exceeds a threshold, a PIM directs further requests away from the failed SRU. (FF 3.) We also find that Kenner's DSI and PIM *identify* failure to deliver video by an SRU because the DSI identifies and communicates a failure to deliver video via the SRU counter and the PIM identifies the failure by the SRU counter exceeding a threshold. (FF 3.) Based on our construing of service with regard to claim 1 *supra* as any function performed by a computer, we find that Kenner's DSI and PIM meet the examining step's set of remaining services. We also find that Kenner's DSI and PIM *examine* data managed by a failed service by *identifying* failure to deliver video. Accordingly, we find that Kenner discloses the examining step's remaining services examining related set of data managed by a failed service. Thus, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claim 3. For the same reasons, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claims 14 and 23 and claims 8, 19, and 28.

Claims 4, 15, and 24 and Claims 9, 20, and 29

Claims in these groups are subject to the same rejection. Appellants set forth the same or similar arguments as to Examiner error for all claims in these groups. (App. Br. 17-18 and 21 and Reply Br. 8 and 11.) Therefore, we select claim 4 as the representative claim to decide the appeal of claims in these groups.

The Examiner finds that Kenner anticipates claim 4. (Ans. 6 and 30-31.) Appellants allege that the Examiner erred in finding that Kenner anticipates claim 4 by arguing that Kenner does not disclose the determining step (App. Br. 18 and Reply Br. 9.) In particular, Appellants argue:

> if an individual video clip is only stored at the failed SRU, the DSI downloads the video clip, rather than determining whether data within the related set of data are at the same location as a service within the set of remaining services.

(*Id.*)

Kenner discloses that when an SRU fails to deliver a requested video clip, the PIM directs queries for the video clip from a DSI to an *alternate* SRU and the alternate SRU delivers the video clip. (FF 3-4.) Kenner's video clips stored at both an alternate SRU and a failed SRU meet the claimed data within the related set of data. Kenner's alternate SRU meets the claimed service within a set of remaining services. Kenner's delivering a video clip from an alternate SRU involves the PIM determining whether the alternate SRU stores the video clip, and thus discloses the determining step's determining whether data within the related set of data are at the same

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location as a service within the set of remaining services. Thus, we find that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claim 4. For the same reasons, we conclude that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claims 15 and 24 and claims 9, 20, and 29.

<div align="center">Claims 6-9, 11, 17-20, and 26-29</div>

Claims in this group are subject to the same rejection. Appellants rely on arguments made with regard to claim 6 to show Examiner error for all claims in this group.[7] (App. Br. 18-20 and Reply Br. 9-10.) Therefore, we select claim 6 as the representative claim to decide the appeal of claims in this group.

The Examiner finds that Kenner anticipates claim 6. (Ans. 7-8 and 32.) Appellants allege that the Examiner erred in finding that Kenner anticipates claim 6 by arguing that Kenner fails to disclose the querying step. (App. Br. 19 and Reply Br. 9.)

We find that Kenner discloses adding an SRU to a network. (FF 5.) We find that Kenner discloses determining heavily loaded and lightly loaded SRUs to perform load balancing among SRUs. (FF 6.) We find that Kenner discloses adding an SRU to a network prior to load balancing among SRUs. (FF 5-6.) Kenner's adding an SRU meets the claimed additional service joining the set of services. Kenner's determining whether an SRU is heavily

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[7] We note that Appellants present separate arguments of Examiner error for Claims 7-9, 18-20, and 27-29. (App. Br. 20-21 and Reply Br. 10-22.) We addressed those separate arguments *supra.*

loaded meets the claimed querying management of data. Accordingly, Kenner's addition of an SRU *followed by* determining whether an SRU is heavily loaded meets the querying step's *responsive to* an additional service joining the distributed set of services, querying management of the data within the related sets of data.

Thus, we find that Appellants have not shown that the Examiner erred in finding that Kenner anticipates claims 6-9, 11, 17-20, and 26-29 for reasons that we presented with regard to claim 6.

<div align="center">Claims 2-5, 10, 12-16, and 21-25</div>

Claims 2-5, 10, 12-16, and 21-25 are subject to the same rejection as that of claim 1. For claims 2-4, 13-15, and 22-24, Appellants rely in part on the same reasons applied with regard to claim 1 to allege Examiner error. (App. Br. 16-18 and Reply Br. 5-8.) For claims 5, 10, 12, 16, 21, and 25, Appellants rely solely on the reasons applied with regard to claim 1 to allege Examiner error. (App. Br. 15 and Reply Br. 5.) Accordingly, to the extent Appellants rely on the same reasons applied with regard to claim 1 to allege Examiner error, we conclude that Appellants have not shown that the Examiner erred in finding those claims anticipated by Kenner for the same reasons set forth with regard to claim 1.

CONCLUSION OF LAW

We conclude that:

(1) Appellants have not shown that the Examiner erred in finding that Claims 1-29 unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kenner.

(2) Claims 1-29 are unpatentable.

DECISION

The Examiner's rejections of claims 1-29 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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